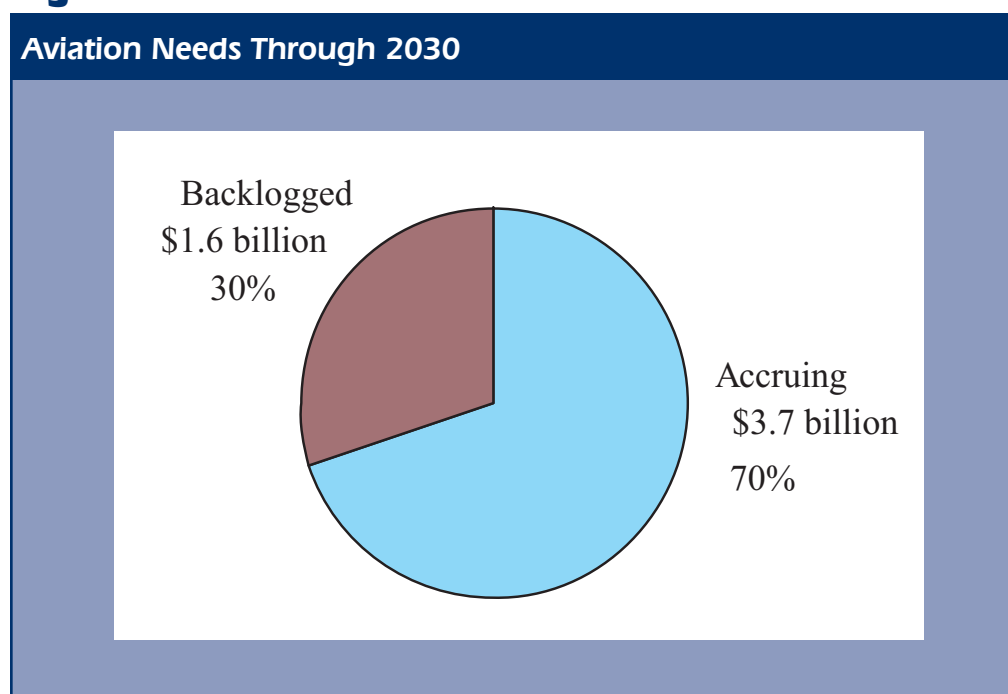


The MASP 2008 lays out a number of system and facility goals aimed at improving air service in Michigan. Many of the goals included in the MASP 2008 are broad in nature, which makes it difficult to create or define metrics that can be used to measure or assess progress in attaining the goals. Likewise, it would be equally difficult to assess the funding necessary to fully and completely meet the goals described in this document. However, the MI Transportation Plan includes an estimate of the funding necessary to meet the capital improvement needs of Michigan's airports through 2030, as requested by individual airport sponsors. If funding were identified to meet all the capital needs required to keep Michigan's airports running safely and efficiently, it likely would ensure that virtually all of the goals of this plan are met.

Based on the capital development plans submitted to MDOT, the MI Transportation Plan estimates aviation needs over the next 25 years to be \$5.3 billion. This is split into backlogged needs and accruing needs. Backlogged needs are transportation improvements or services that are currently deficient or currently require additional funds to bring them up to standard. Accruing needs assume the backlogged needs are taken care of early and include the needs that arise over the next 25 years. Needs estimates include anticipated capital improvements that have been historically funded through a combination of federal, state and local sources. The cost of airport operations and maintenance are not included in these needs. Examples of aviation needs include preservation and improvement of airport infrastructure, including pavement, apron, taxiway, terminal, lighting system, and other items essential to the effective delivery of aviation services. Construction and engineering costs also are included.

For more details regarding how these needs were determined, please see the technical note at the end of this section. Figure 17 below shows the breakdown of backlog and accruing needs.

Figure 17



Source: MI Transportation Plan

Funding Overview

There are a number of federal and state programs that provide financial assistance to airports in maintaining, improving or expanding service to fill their vital role in Michigan's transportation system. While many of these programs operate independent of the MASP, they are all very important in moving Michigan closer to attaining the goals outlined in this report. These programs as they exist today, along with selected information on historical funding levels, are summarized below.

Federal Programs

The federal aviation program consists of a number of large and small programs targeted for specific purposes and regularly evaluated for their effectiveness by Congress. The specific provisions of each federal program (such as qualifying criteria and project eligibilities), funding levels for these programs, and the revenue sources used to support them (which currently consist primarily of user fees and fuel taxes) are re-examined by Congress at least every four years. This re-examination can, and usually does, result in changes to federal aviation programs. The programs described below represent only those currently authorized to distribute funding to airports and are subject to change or discontinuation.

Airport Improvement Program

Established in 1982, this is the largest federal program that provides funds directly to airports or to states for further distribution to airports. In order to be eligible to receive Airport Improvement Program (AIP) funding, an airport must be included in the National Plan of Integrated Airport Systems (NPIAS), of which 94 Michigan airports are included. AIP funds generally must be used for capital projects, which include airport development items such as runway extension and rehabilitation, safety improvements, equipment purchases or planning activities. Federal AIP funds cannot be used to pay for the entire cost of an eligible project and must be matched with funds from other sources, such as state, local or private funds. For all but medium and large hub airports, federal funds can be used to pay for up to 95 percent of a project's eligible costs. The federal share of project costs for all other airports varies. Funds in the AIP are apportioned to airports or states in several different program categories, described below:

Primary Airport Entitlements – Airports with commercial service that board at least 10,000 passengers in a calendar year are eligible for this category of funding. The amount of funding provided to each eligible airport is generally determined by a formula that relies on the number of passenger boardings. The minimum amount for each eligible airport is currently \$1,000,000.

Non-Primary Airport Entitlements – Airports that are not eligible for Primary Entitlements are eligible to receive funding from the available Non-Primary Entitlements. All eligible airports receive a minimum of \$150,000 and possibly, more depending on the availability of funding and the actual documented needs of each specific airport.

Cargo Airport Entitlements – Funding in this category is provided to airports served by aircraft providing air transportation of cargo with a total annual landed weight of more than one hundred million pounds. Funding for each eligible airport is based on available funding and the nationwide share of the total annual landed weight of aircraft at each eligible airport. It is important to note that all airports that meet the annual landed weight criteria mentioned

above are eligible for funding under this program, regardless of whether they handle only cargo or a mix of cargo and passenger traffic.

State Apportionments – Funds are apportioned to states based on population and total land area. States may use these funds as they see fit among Non-Primary Airports.

Discretionary Categories – Funds not apportioned through the categories above are competitively awarded by the FAA to certain airports through a few different discretionary programs. These programs include a noise program, military airport program, and a program intended to address high priority needs.

Table 50 below shows Michigan and nationwide AIP funding levels for the past 10 years.

Table 50

Historical Airport Improvement Funding Levels				
Fiscal Year	Michigan's AIP Amount	Growth Over Prior Year	Nationwide AIP Amount	Growth Over Prior Year
1998	\$46,355,235	1%	\$1,503,468,689	2%
1999	\$59,401,407	28%	\$1,958,744,219	30%
2000	\$60,396,420	2%	\$1,872,677,035	-4%
2001	\$118,123,406	96%	\$3,114,947,971	66%
2002	\$108,601,415	-8%	\$3,396,324,904	9%
2003	\$88,412,636	-19%	\$3,274,175,485	-4%
2004	\$102,198,006	16%	\$3,374,673,698	3%
2005	\$102,299,634	0%	\$3,409,031,636	1%
2006	\$101,419,065	-1%	\$3,411,416,175	0%
2007	\$118,281,074	17%	\$3,340,947,531	-2%
10 year Total	\$905,488,298		\$28,656,407,343	

Source: MDOT Bureau of Aeronautics & Freight Services

Essential Air Service

The Essential Air Service (EAS) program was created in 1978, when Congress deregulated the airline industry. When market forces were set to replace governmental control of fares and service routes, there was concern that air service to small communities would suffer as a result. Congress ensured that all communities served by air carriers before deregulation would continue to receive some level of scheduled air service by creating the EAS program to subsidize service if an air carrier could not provide it without incurring a loss. The funds flowing through this program are provided directly to the air carrier. Currently, four airports in Michigan are eligible for subsidies through the EAS program. Table 51 shows the amount of funding each of the four airports has received over the past 10 years.

Table 51

Historical EAS Subsidies				
Fiscal Year	Delta County Airport, Escanaba	Ford Airport, Iron Mountain	Gogebic County Airport, Ironwood	Manistee County-Blacker Airport
1998	NA	\$473,599	\$357,588	\$361,808
1999	NA	\$473,599	\$544,269	\$361,808
2000	NA	\$473,599	\$544,269	\$542,168
2001	NA	\$478,693	\$479,879	\$484,545
2002	NA	\$478,693	\$479,879	\$484,545
2003	NA	\$478,693	\$479,879	\$484,545
2004	\$290,952	\$602,761	\$409,242	\$776,051
2005	\$290,952	\$602,761	\$409,242	\$776,051
2006	\$908,903	\$602,761	\$409,242	\$776,051
2007	\$960,627	\$1,067,067	\$710,945	\$893,295
10 year Total	\$2,451,434	\$5,732,226	\$4,824,434	\$5,940,867

Source: MDOT Bureau of Aeronautics & Freight Services

Small Community Air Service Development

The Small Community Air Service Development program was established in 2000 to help small communities improve their air service. Participation in this program is limited to 40 communities nationwide, or consortia of communities, per year. To be eligible for the program, the airport serving the community must be no larger than a primary small hub airport (based on calendar year 1997 data) and have insufficient air carrier service, unreasonably high air fare, geographic diversity, or unique circumstances that will demonstrate the need for the program. No more than four grant recipients may be located in the same state in any year. Program funds may be spent on a wide range of activities, including marketing, air carrier start-up subsidies, revenue guarantees, or market studies. Table 52 shows the airports in Michigan that have received funding through this program.

Table 52

SCASD Funding to Michigan Airports		
Fiscal Year	Airport	Amount of Award
2002	Houghton County	\$80,000
2002	Pellston Regional of Emmet County	\$80,000
2003	Muskegon County	\$600,000
2004	Alpena County Regional	\$583,000
2004	Kalamazoo/Battle Creek Int'l	\$500,000
2004	Sawyer International	\$700,000
2005	Chippewa County International	\$587,000
2005	Houghton County	\$516,000
2007	Gogebic County Airport	\$135,000
2007	MBS International	\$500,000

Source: MDOT Bureau of Aeronautics & Freight Services

State Funding Assistance

Much like the federal government, the State of Michigan also receives revenue to support aviation programs and services from aviation fuel taxes and user fees. Some of this revenue is used to provide a portion of the non-federal matching fund requirement associated with the federal AIP program. For all but medium and large hub airports, the federal funds can be used to pay for up to 95 percent of a project's eligible costs. The federal share of project costs for all other airports varies. For both categories of airports, the state generally requires 2.5 percent of eligible costs to be paid by the local airport, and the remainder of the eligible costs is paid by the state. The state administers five other programs, which are described below, that provide funding to a specific group of airports or for a specific purpose.

Crack Sealing and Paint Marking

The state provides up to 50 percent of a project's eligible cost for crack sealing and paint marking for runways. Funding is limited to \$15,000 over any consecutive three-year period.

Small Airports Program

This program is open to airports with less than 100 based aircraft and/or one with less than 10,000 annual commercial enplanements. This opens up funding opportunities for some airports that are not eligible for federal assistance. The program provides funding for up to 90 percent of the eligible cost of projects that are important to the airport and the MASP.

Airport Loan Program

Publicly owned airports in Michigan may borrow up to \$100,000 for capital improvements through this program (i.e., the outstanding balance of any airport is limited to \$100,000). Loans must be paid back within 10 years and each airport must pay at least 10 percent of the cost of the project for which funds are borrowed.

Safety and Security Program

This program provides state funds for safety and security projects, which are matched with local funds on a 90/10 percent basis for non-hub primary and large general aviation airports and on a 95/5 percent basis for small general aviation airports.

Michigan Air Service Program

The goals of the Air Service program are to sustain and/or improve existing levels of commercial air service to increase accessibility of Michigan's recreational, business and industrial centers, improve efficiency of handling scheduled passengers and cargo at air carrier airports, heighten awareness of the airport's role in supporting community growth and economic development, and secure increased federal entitlement funds for airport improvements through increased passenger enplanements. The program funds projects for capital improvement and equipment, carrier recruitment and retention, and airport awareness activities. Local matching requirements apply. The amount of match required varies by project type and the size of the airport (as measured by the number of enplanements).

Local Funding

Local funds, which are required for all state and federally assisted capital projects, come from a variety of sources. Local governments, airport authorities, other airport owners, airport user groups and business groups are just some of the entities that can provide airports with local funds. Local funding sources are diverse and can include funds provided from a local government's operating budget, dedicated millage levy, or user fees, such as hangar rentals and fuel sales.

Passenger Facility Charges

In addition to the local funding sources mentioned above, in 1992 Congress began allowing individual airports to impose a Passenger Facility Charge (PFC) on enplaning passengers. Proceeds from PFCs may be used by the airports to fund FAA-approved airport improvement projects that fit within the programs broad objectives of: (1) preserving or enhancing airport safety, security, or capacity; (2) reducing noise; or (3) enhancing airline competition. Airports generally have far more flexibility in using these funds than they have using some of the other major funding sources, such as AIP funding. The FAA must approve an airport's request to levy the fee, and the fee is limited to \$4.50 per ticket. Despite the federal role in approving and administering PFCs, the funds collected are essentially treated as local funds.

Customer Facility Charges

At some airports each rental car concessionaire collects a Customer Facility Charge (CFC) from its customers. CFCs are typically used to pay all or a portion of the capital costs of a consolidated rental car facility or the rental car operator's portion of a parking garage. CFCs may be assessed on a per-transaction basis (i.e. as a one-time fee for each rental car contract) or on a per-transaction-day basis (i.e., as a fee charged for each day the rental car contract is in effect). As with PFC revenue, revenues from CFCs are local money. Unlike PFC revenues, there is no requirement for any federal oversight or approval of the CFC. CFCs are usually established pursuant to an ordinance that documents the CFC amount, project being funded and the total amount to be collected under the CFC. Because rental car companies cannot decide among themselves to charge a CFC, the airport operator has a great degree of discretion in setting the fee.

Technical Note on Calculating Aviation Needs

This provides greater detail on how the aviation system needs that are reported in the Projected Aviation Needs and Funding Overview section of the MASP 2008 were determined.

The backlog of needs is based upon a compilation of Five-Year Plans, a federally required planning document for all airports in the NPIAS. An assumption of \$250 million in 2006, with annual growth of five percent annually over the subsequent five years, was used for the backlogged needs costs. An annual accrual, starting at \$115 million (in 2005 dollars), with a five percent annual increase, is assumed through the life of the plan. Here is an example of the difference between backlog and accruing needs. Some facilities are currently congested; the cost to improve these facilities would be included in the backlogged needs. The facilities that become congested as the population grows or shifts would be included in the accruing needs.

Important assumptions were made in the development of the needs estimates, and those are described below:

1. Backlogged costs were calculated by taking the full backlog units, or dollars, spreading them over the first six years of the plan (2006-2011), and increasing the rate to account for increasing unit cost rates.
2. Accruing costs were calculated by two methods: (a) if the year of implementation is known over the life of the plan, these units by year were multiplied by increasing the unit cost rates of the MI Transportation Plan as they appear in the "Revenue Gap and Investment Packages" report; or (b), if these distributions are unknown, the units were spread evenly over the 25 years of the plan.
3. All costs were calculated in year of expenditures (\$YOE), or the actual value of the years they will be utilized in, \$YOE's are discounted to 2005 dollars using a discount rate of 3.1 percent.
4. Unit costs were developed for many of the categories. The unit costs were escalated at different rates, depending on the type of improvement category.
5. Some categories did not have unit costs but had 2005 base year expenditures. These expenditures were also escalated using various escalation rates.